

### ***Remarks***

Based on the above amendments and the following remarks, Applicant respectfully requests reconsideration and withdrawal of the outstanding objections and rejections set forth in the Action.

#### **A. Status of the Claims**

Claims 1-15, and 32-82 are currently pending in the application. Claims 2, 4, 7, 10-14, 32-54, 56-58, 60, 61, 63, 66-70, 72-75, 77 and 79-82 have been withdrawn from consideration as being drawn to non-elected species. Claims 16-31 are cancelled. Independent claims 1, 55, and 76 have been amended. Support for the claim amendments can be found in the original claims and throughout the Specification, e.g., on page 5, paragraph [0012] and page 6, paragraph [0015]. Thus, no new matter is introduced by these amendments and their entry is respectfully requested.

#### **B. Rejection of Claims Under 35 U.S.C. § 112, Second Paragraph**

Claims 1, 3, 5, 6, 8, 9, 15, 55, 59, 62, 64, 71, 76 and 78 are rejected under 35 U.S.C. § 112, first paragraph for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention.

Claims 1, 55 and 76 have been amended to recite “monomeric deoxynucleotide triphosphates” (emphasis added). Thus, Applicants respectfully request that the rejection of independent claims 1, 55 and 76 and dependent claims 3, 5, 6, 8, 9, 15, 59, 62, 64, 71 and 78 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claims 3, 5 and 59 recite the limitation “said modified nucleotides.” Because of the current amendments to claims 1, 55, and 76 mentioned directly above, these claims now have sufficient antecedent basis. Thus, Applicants respectfully request that the rejection with respect to claims 3, 5, and 59 be withdrawn.

**C. Rejection of Claims Under 35 U.S.C. § 103(a)**

Claims 1, 3, 5, 6, 8, 9, 15, 55, 59, 62, 64, 71, 76 and 78 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,709,815 B1 (Dong, *et al.*) in view of U.S. Patent No. 6,906,244 B2 (Fischer, *et al.*). Applicants respectfully traverse this rejection.

Establishing *prima facie* obviousness requires a showing that each claim element is taught or suggested by the prior art. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. See *KSR Int'l v. Teleflex Inc.*, U.S. Supreme Court No. 04-1350 (April 30, 2007) at 14. Moreover, rejections based on obviousness grounds cannot be sustained by mere conclusory statements; instead, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*

Present claims 1, 3, 5, 6, 8, 9, 15, 55, 59, 62, 64, 71, 76 and 78 are drawn to compositions or kits comprising 2 or more different, modified, monomeric deoxyribonucleotide triphosphates or reaction mixtures comprising nucleic acid molecules having 2 or more different, modified, monomeric deoxyribonucleotide triphosphates.

Dong, *et al.*, discloses PCR mixtures containing a nucleotide analog, or a modified form of a deoxyribonucleotide or ribonucleotide... i.e., “using dUTP, 7-deaza-dATP, 7-deaza-dGTP or any other nucleotide analog in the reaction mixture.” See Dong, *et al.* at column 44, lines 51-64. Fischer, *et al.* discloses reactions using aminoallyl-dUTP for synthesis of labeled probes. See Fischer, *et al.* at column 49, lines 34-39.

Dong's PCR reactions are “conducted in the presence of a nucleotide analog” to make nucleic acid products that “comprise a nucleotide analog” (emphases added). See Dong, *et al.* at column 11, lines 27-30 and at column 12, lines 26-29. In other words, the PCR methods employed

by Dong, *et al.* involve the use of a single (or the same), modified monomeric deoxyribonucleotide triphosphate, such as dUTP, 7-deaza-dATP or 7-deaza-dGTP in their reactions. *Id.* This is in contrast to the present composition and kit claims that comprise 2 or more different, modified, monomeric deoxyribonucleotide triphosphates and reaction mixture claims that comprise nucleic acid molecules having 2 or more different, modified, monomeric deoxyribonucleotide triphosphates. Fischer, *et al.* does not cure this deficiency. Thus, Dong, *et al.* in view of Fischer, *et al.* cannot be said to teach the compositions, kits or reaction mixtures of the present claims

The Action asserts on page 4 that Dong, *et al.* “disclose that the[ir] reaction can be one that incorporates any combination of modified nucleotides.” However, Applicants fail to see any reference to the use of a *combination* of 2 or more different, modified nucleotides anywhere in Dong *et al.* Applicants therefore respectfully request that the Examiner provide a citation to the specific passage(s) of Dong, *et al.* that support the Action's assertions with regard to such combinations of at least 2 different, modified monomeric deoxyribonucleotide triphosphates, or withdraw this argument.

In conclusion, Dong, *et al.*, do not teach compositions or kits comprising 2 or more different, modified, monomeric deoxyribonucleotide triphosphates or reaction mixtures comprising nucleic acid molecules having 2 or more different, modified, monomeric deoxyribonucleotide triphosphates as is presently claimed. Fischer, *et al.* does not cure this deficiency. Therefore, a prima facie obviousness has not been established and Applicants respectfully request that the rejection of claims 1, 3, 5, 6, 8, 9, 15, 55, 59, 62, 64, 71, 76 and 78 under 35 U.S.C. § 103(a) be withdrawn.

**D. Conclusion**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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